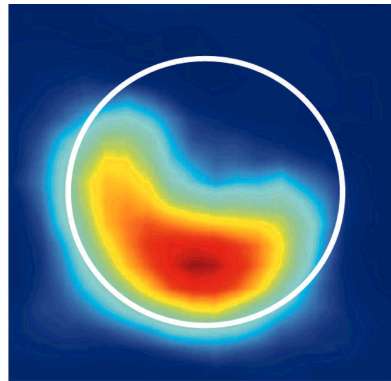
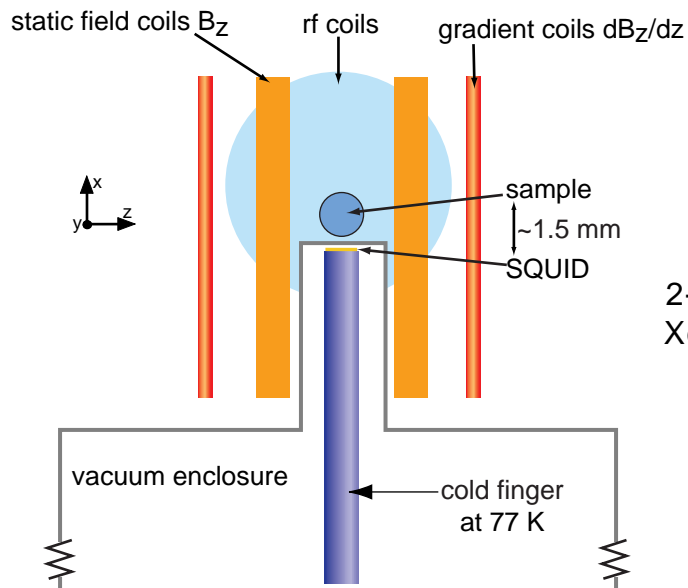


Magnetic Images Obtained in Ultralow Magnetic Fields

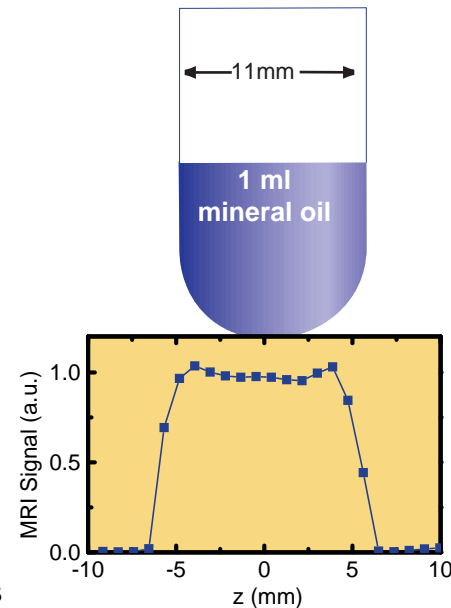
New Technique Eliminates Need for Large Magnets in MRI

Use of SQUID and Optical Pumping Provides Increased Sensitivity

SQUIDs are used as the detector in NMR and MRI at ultralow magnetic fields with room temperature or cold samples.

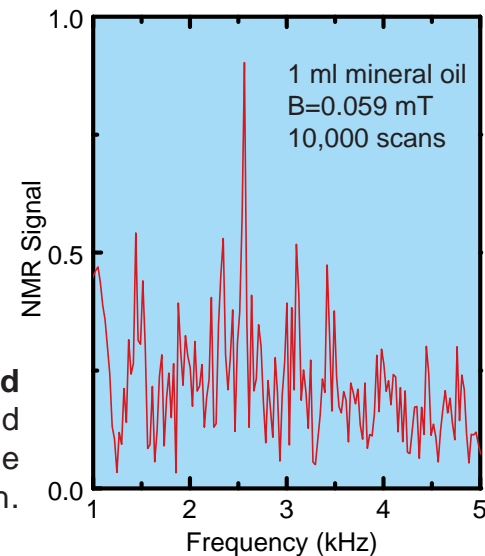


Low Temperature, Low Field
2-D MRI image of optically pumped Xe at 4 K, 0.5 mT. The field used is 1/10,000 of that used in conventional MRI.



Room Temperature, Low Field
1-D MRI image of mineral oil at 2 mT and room temperature.

Room Temperature, Ultralow Field
NMR spectrum of mineral oil at 0.059 mT and room temperature. Field is equivalent to the magnetic field of the Earth.



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